

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

December 19, 1979

TO: Nels I. Johnson, Regional Wildlife Biologist  
 FROM: Jerry Weinrich, Endangered Species/Wild Turkey Biologist  
 SUBJECT: Current and Projected Estimate of Kirtland's Warbler Nesting  
 Habitat to 1989 - State of Michigan and USFS Proposed Critical Habitat

Following are best estimates for acreages of "occupiable-aged" jack pine (and some red pine) stands for Kirtland's Warblers on U.S. Forest Service and State of Michigan lands in Presque Isle, Otsego, Montmorency, Alcona, Oscoda, Crawford, Kalkaska, Iosco, Ogemaw, Roscommon and Clare Counties. ("Occupiable-aged" is taken as ages 8 to 20 for wildfire areas and ages 10 to 20 for plantations, etc.).

<u>Management Agency</u>	<u>Acreage Apparently Occupiable in 1979</u>	<u>Acreage Occupiable-Aged in 1984</u>	<u>Acreage Occupiable-Aged in 1989</u>
U.S. Forest Service	3,937	5,388	5,926
State of Michigan-Proposed Critical Habitat	11,017	10,474	4,618
State of Michigan-Military Area	950	4,000	3,000
Totals	15,904	19,862	13,544

It should be stressed again that much of this habitat, even though of suitable age, has not been and probably will not be occupied by Kirtland's Warblers. Many of these stands, even to our eyes, lack characteristics of stand size, ground cover, stocking density and/or uniformity of height apparently preferred by this warbler. Overall, less than 60 per cent of the "occupiable-aged" habitat on these public lands was known to hold Kirtland's in 1979 (stands totalling 8,900 acres were known to be used by Warblers, but in several cases only portions of these stands were occupied). This 8,900 acres of occupied habitat represents less than 7 per cent of the total of 138,000 acres of public land identified for management for the Kirtland's Warbler.

Over 9,500 acres of private lands within the boundaries of proposed Kirtland's Warbler Management areas have been identified as being desirable for acquisition. Of these private lands, only about 700 acres have occupiable-aged habitat now. Less than 700 acres of jack pine habitat in this age class will be available on such lands in 1984 and this source of potential habitat will, without wildfires, drop to less than 600 acres by 1989.

Additionally, there exists some limited acreage outside management areas on both public and private lands with potential for use by warblers within 10 years. Approximate acreages are as follows:

	Apparently Occupiable in 1979	Occupiable-Aged in 1984	Occupiable-Aged in 1989
Outside Management Areas-Public	1,000	1,000	1,000
Outside Management Areas-Private	200	650	650

The following table shows present and projected total acreage estimates of habitable-aged jack pine lands, by ownership type, for the 11 county area comprising all of the known nesting\* range for the Kirtland's Warbler:

Ownership	Apparently-Occupiable In 1979 (acres)	Occupiable-Aged In 1984 (Acres)	Occupiable-Aged In 1989 (Acres)
State of Michigan-Management Areas	11,017	10,474	4,618
State of Michigan-Military Lands	950	4,000	3,000
State of Michigan-Outside Management Areas	600	600	600
U.S.Forest Service-Management Areas	3,937	5,388	5,926
U.S.Forest Service-Outside Management Areas	400	400	400
Private-Within State of Michigan Management Areas	700	700	600
Private-Outside State of Michigan Management Areas	200	650	650
Private-Within Huron Nat'l Forest	0	0	0
Totals (Maximal)	17,804	22,212	15,794

\*Presence of female Kirtland's Warblers was not determined for the Wexford County site recently occupied by male warblers; and no females could be found associated with the male warblers recently observed in Ontario, Quebec or Wisconsin.

Undoubtedly, some will argue that with this relatively large amount of (apparently) available habitat that nesting habitat cannot now be a major factor limiting the population of the Kirtland's Warbler. Consider, however, that 75 per cent (157) of all the singing males in 1979 were found within five large wildfire areas (Military Area, Fletcher Road, Damon, St.Helen and Muskrat Lake) and in that part of the U.S.F.S. Mack Lake Management Area regenerated in the mid 1960's with prescribed seed tree burning and supplemental planting. Acreage of occupiable-aged habitat in these six areas totals 7010 acres - only 40 per cent of the 17,804 acres of occupiable-aged habitat present in these 11 counties. This disproportionate distribution suggests selection for quality of habitat, i.e. habitat of wildfire origin or habitat approximating same. Indeed, much of the "occupiable-aged" habitat in these counties, even to human eyes, appears to be very different from that of wildfire origin. It seems much more likely ~~sure~~ that the amount actually acceptable habitat is indeed a major factor limiting the Kirtland's Warbler population. And, most importantly, considering that the total acreage of occupiable-aged habitat will decline by 1989 (barring large wildfires within the next two years), the need for greatly-increased habitat regeneration efforts is obviously severe and immediate.

JW:leg

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